Analytical Data Package Prepared For

Fluor Hanford Inc.

Radiochemical Analysis By

TestAmerica

2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.

Assigned Laboratory Code: TARL

Data Package Contains _____ Pages

Report No.: 39667

Results in this report relate only to the sample(s) analyzed.

SDG No.	Order No.	Client Sample ID (List Order)	Lot-Sa No.	Work Order	Report DB ID	Batch No.
W05478	F06-027	B1WNC1	J8H060259-1	KTPL71AC	9KTPL710	8219440
		B1WNC1	J8H060259-1	KTPL71AA	9KTPL710	8219444
		B1WNC2	J8H060259-2	KTPMD1AC	9KTPMD10	8219440
		B1WNC2	J8H060259-2	KTPMD2AA	9KTPMD20	8219444
		B1WNC3	J8H060259-3	KTPMF1AC	9KTPMF10	8219440
		B1WNC3	J8H060259-3	KTPMF1AA	9KTPMF10	8219444
		B1WNC4	J8H060259-4	KTPMG1AC	9KTPMG10	8219440
		B1WNC4	J8H060259-4	KTPMG1AA	9KTPMG10	8219444
		B1WNC6	J8H060259-5	KTPMM1AC	9KTPMM10	8219440
		B1WNC6	J8H060259-5	KTPMM1AA	9KTPMM10	8219444
		B1WNC7	J8H060259-6	KTPMP1AC	9KTPMP10	8219440
		B1WNC7	J8H060259-6	KTPMP1AA	9KTPMP10	8219444
		B1WNC8	J8H060259-7	KTPMR1AC	9KTPMR10	8219440
		B1WNC8	J8H060259-7	KTPMR1AA	9KTPMR10	8219444
		B1WNC9	J8H060259-8	KTPMV1AC	9KTPMV10	8219440
		B1WNC9	J8H060259-8	KTPMV1AA	9KTPMV10	8219444
		B1WND0	J8H060259-9	KTPMW1AC	9KTPMW10	8219440
		B1WND0	J8H060259-9	KTPMW1AA	9KTPMW10	8219444
		B1WND1	J8H060259-10	KTPM11AC	9KTPM110	8219440
		B1WND1	J8H060259-10	KTPM11AA	9KTPM110	8219444
	F06-027	B1WND2	J8H060259-11	KTPM21AC	9KTPM210	8219440
		B1WND2	J8H060259-11	KTPM21AA	9KTPM210	8219444
		B1WND3	J8H060259-12	KTPM41AC	9KTPM410	8219440
		B1WND3	J8H060259-12	KTPM41AA	9KTPM410	8219444

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

Fluor Hanford, Inc.
1200 Jadwin Ave.
Richland, WA 99352

August 11, 2008

Attention: Steve Trent

SAF Number	:	F06-027
Date SDG Closed	:	August 6, 2008
Number of Samples	:	Twelve (12)
Sample Type	:	Water
SDG Number	:	W05478
Data Deliverable	:	3/15 Day

CASE NARRATIVE

I. Introduction

On August 6, 2008 twelve samples were received at TestAmerica for radiochemical analysis. Upon receipt, the samples were assigned to lot J8H060259 and assigned the following laboratory ID number to correspond with the Fluor Hanford (FH) specific ID:

FLH ID#	STLR ID#	DATE OF RECEIPT	MATRIX
B1WNC1	KTPL7	8/6/08	WATER
B1WNC2	KTPMD	8/6/08	WATER
B1WNC3	KTPMF	8/6/08	WATER
B1WNC4	KTPMG	8/6/08	WATER
B1WNC6	KTPMM	8/6/08	WATER
B1WNC7	KTPMP	8/6/08	WATER
B1WNC8	KTPMR	8/6/08	WATER
B1WNC9	KTPMV	8/6/08	WATER
B1WND0	KTPMW	8/6/08	WATER
B1WND1	KTPM1	8/6/08	WATER
B1WND2	KTPM2	8/6/08	WATER
B1WND3	KTPM4	8/6/08	WATER

II. Sample Receipt

The samples were received in good condition and no anomalies were noted during check-in.

III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information, analytical results and the appropriate associated statistical errors.

The requested analyses were:

Gas Proportional Counting
Gross Alpha by method RICH-RC-5014
Gross Beta by method RICH-RC-5014

IV. Quality Control

The analytical results for each analysis performed includes a minimum of one laboratory control sample (LCS), one method (reagent) blank, and one duplicate sample analysis. Any exceptions have been noted in the "Comments" section.

QC and sample results are reported in the same units.

V. Comments

Gas Proportional Counting

Gross Alpha by method RICH-RC-5014:
The pH was greater than 2 for all the samples. TestAmerica emailed an IRF on August 6, 2008. The client accepted the proposed resolution (Tracking Number: 08-134) on August 7, 2008.

All the samples in this SDG were analyzed with reduced aliquots based on weight screen results. The samples did not meet the CRDL. The result for sample B1WND3 exceeded the achieved MDA. The samples were counted for the maximum 200 minutes.

Except as noted, the LCS, batch blank, samples and sample duplicate (B1WNC1) results are within contractual requirements.

Gross Beta by method RICH-RC-5014:
The pH was greater than 2 for all the samples. TestAmerica emailed an IRF on August 6, 2008. The client accepted the proposed resolution (Tracking Number: 08-134) on August 7, 2008.

All the samples in this SDG were analyzed with reduced aliquots based on weight screen results. The samples did not meet the CRDL, however the results exceed the achieved MDAs except for B1WND1. The samples were counted for the 200 minute maximum.

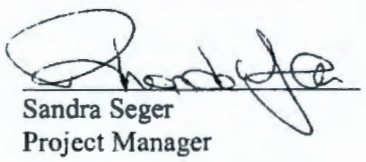
Sample B1WNC2 and B1WNC2 (DUP) did not agree. The sample and duplicate were recounted; the recount data the activity detected in the duplicate is below the MDA. The sample and duplicate were

counted for the maximum time frame appropriate for this analysis. The discrepancy between the sample and duplicate is possibly due to the small fraction of volume analyzed. Data will be accepted.

Except as noted, the LCS, batch blank, samples and sample duplicate (B1WNC2) results are within contractual requirements

I certify that this Certificate of Analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager, or a designee as verified by the following signature.

Reviewed and approved:



Sandra Seger
Project Manager

TAL RICHLAND ISSUE RESOLUTION FORM
FOR CONTRACT 615

Tracking Number: 08-134
SAF No.: F06-027
Date: August 6, 2008
SDG: W05478
Sample No.(s) B1WNC1, B1WNC2, B1WNC3, B1WNC4, B1WNC6, B1WNC7, B1WNC8, B1WNC9, B1WND0, B1WND1, B1WND2, B1WND3

Submitted By: Rhonda Wagar

Phone No. 509-375-3131 x173
Fax No. 509-375-5590

Submitted To: **Steve Trent (FH)**

Phone No. **509-373-5869**
Fax No. 866-252-5816

ISSUE	**PROPOSED RESOLUTION**
The sample bottle labels indicate the samples were acidified, however the pH was greater than 2. The requested analytes were gross alpha and gross beta.	The client has instructed TestAmerica to acidify the samples and proceed with analysis. The 24 hour waiting period after acidification has been waived by the client.

FLH COMMENTS -
Accept proposed resolution.

Heidi Hampt 8/7/08

Signature and date

Wagar, Rhonda

From: Hampt, Heidi [Heidi_Hampt@RL.gov]
Sent: Thursday, August 07, 2008 9:56 AM
To: Wagar, Rhonda
Cc: Seger, Sandra; ^CPP Sample Management; Trent, Stephen J; Widrig, Dana L; Anastos, Heather L; Fies, Gregory A
Subject: RE: W05478 IRF
Attachments: 08-134.DOC

Rhonda,

Our response is attached.

Thanks,
Heidi

From: Wagar, Rhonda [mailto:Rhonda.Wagar@testamericainc.com]
Sent: Wednesday, August 06, 2008 2:19 PM
To: Hampt, Heidi
Cc: Seger, Sandra
Subject: W05478 IRF

RHONDA WAGAR
Quality Assurance Specialist

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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Drinking Water Method Cross References

	DRINKING WATER ASTM METHOD CROSS REFERENCES	
Referenced Method	**Isotope(s)**	**TestAmerica Richland's SOP No.**
EPA 901.1	Cs-134, I-131	RICH-RC-5017
EPA 900.0	Alpha & Beta	RICH-RC-5014
EPA 00-02	Gross Alpha (Coprecipitation)	RICH-RC-5021
EPA 903.0	Total Alpha Radium (Ra-226)	RICH-RC-5027
EPA 903.1	Ra-226	RICH-RC-5005
EPA 904.0	Ra-228	RICH-RC-5005
EPA 905.0	Sr-89/90	RICH-RC-5006
ASTM D5174	Uranium	RICH-RC-5058
EPA 906.0	Tritium	RICH-RC-5007

Results in this report relate only to the sample(s) analyzed.

Uncertainty Estimation

TestAmerica Richland has adopted the internationally accepted approach to estimating uncertainties described in "NIST Technical Note 1297, 1994 Edition". The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, R = constants * f(x,y,z,...). The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties (u_i) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty (u_c) multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value (S/?n), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

The derivation of the general "Law of Propagation of Errors" equations and specific example are available on request.

Report Definitions

Action Lev	An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.
Batch	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
Bias	Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30.
COC No	Chain of Custody Number assigned by the Client or TestAmerica.
Count Error (#s)	Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.
Total Uncert (#s) u_c *- Combined Uncertainty.*	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, u_c *the combined uncertainty*. The uncertainty is absolute and in the same units as the result.
(#s), Coverage Factor	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
CRDL (RL)	Contractual Required Detection Limit as defined in the Client's Statement Of Work or TestAmerica "default" nominal detection limit. Often referred to the reporting level (RL)
Lc	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. Lc=(1.645 * Sqrt(2*(BkgrndCnt/BkgrndCntMin)/SCntMin)) * (ConvFct/(Eff*Yld*Abn*Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
Lot-Sample No	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
MDC|MDA	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. MDC = (4.65 * Sqrt((BkgrndCnt/BkgrndCntMin)/SCntMin) + 2.71/SCntMin) * (ConvFct/(Eff * Yld * Abn * Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot.
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUcert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the **Work Order** Number.
RER	The equation Replicate Error Ratio = (S-D)/[sqrt($TPUs^2 + TPUd^2$)] as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample.
SDG	Sample Delivery Group Number assigned by the Client or assigned by TestAmerica upon sample receipt.
Sum Rpt Alpha Spec Rst(s)	The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units.
Work Order	The LIMS software assign test specific identifier.
Yield	The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.

Sample Results Summary

Date: 11-Aug-08

TestAmerica TARL

Ordered by Method, Batch No., Client Sample ID.

Report No. : 39667

SDG No: W05478

Batch	Client Id / Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
8219440 9310_ALPHABETA_GPC									
	B1WNC1								
	KTPL71AC	ALPHA	4.18E+00 +- 5.17E+00	U	pCi/L	100%	9.48E+00	3.00E+00	
	B1WNC1 DUP								
	KTPL71AD	ALPHA	2.03E+00 +- 4.91E+00	U	pCi/L	100%	1.02E+01	3.00E+00	69.4
	B1WNC2								
	KTPMD1AC	ALPHA	1.22E+00 +- 7.48E+00	U	pCi/L	100%	1.68E+01	3.00E+00	
	B1WNC3								
	KTPMF1AC	ALPHA	3.11E-01 +- 2.56E+00	U	pCi/L	100%	5.90E+00	3.00E+00	
	B1WNC4								
	KTPMG1AC	ALPHA	2.43E+00 +- 2.95E+00	U	pCi/L	100%	5.33E+00	3.00E+00	
	B1WNC6								
	KTPMM1AC	ALPHA	-6.54E-01 +- 2.05E+00	U	pCi/L	100%	5.61E+00	3.00E+00	
	B1WNC7								
	KTPMP1AC	ALPHA	0.00E+00 +- 4.86E+00	U	pCi/L	100%	1.13E+01	3.00E+00	
	B1WNC8								
	KTPMR1AC	ALPHA	4.66E+00 +- 7.80E+00	U	pCi/L	100%	1.53E+01	3.00E+00	
	B1WNC9								
	KTPMV1AC	ALPHA	4.88E+00 +- 7.62E+00	U	pCi/L	100%	1.48E+01	3.00E+00	
	B1WND0								
	KTPMW1AC	ALPHA	-2.36E+00 +- 5.18E+00	U	pCi/L	100%	1.30E+01	3.00E+00	
	B1WND1								
	KTPM11AC	ALPHA	7.93E-01 +- 3.97E+00	U	pCi/L	100%	8.63E+00	3.00E+00	
	B1WND2								
	KTPM21AC	ALPHA	2.32E+00 +- 3.68E+00	U	pCi/L	100%	7.16E+00	3.00E+00	
	B1WND3								
	KTPM41AC	ALPHA	7.78E+00 +- 3.40E+00		pCi/L	100%	3.55E+00	3.00E+00	
8219444 BETA_GPC									
	B1WNC1								
	KTPL71AA	BETA	8.62E+01 +- 1.96E+01		pCi/L	100%	1.99E+01	4.00E+00	
	B1WNC2								
	KTPMD2AA	BETA	5.12E+01 +- 1.94E+01		pCi/L	100%	3.21E+01	4.00E+00	
	B1WNC2 DUP								
	KTPMD2AD	BETA	2.06E+01 +- 1.67E+01	U	pCi/L	100%	3.15E+01	4.00E+00	85.3
	B1WNC3								
	KTPMF1AA	BETA	2.33E+01 +- 8.25E+00		pCi/L	100%	1.33E+01	4.00E+00	
	B1WNC4								
	KTPMG1AA	BETA	7.09E+03 +- 1.26E+03		pCi/L	100%	1.28E+01	4.00E+00	
	B1WNC6								
	KTPMM1AA	BETA	5.07E+01 +- 1.14E+01		pCi/L	100%	1.43E+01	4.00E+00	

TestAmerica

rptSTLRchSaSummary2 V5.1.7 A2002

RPD - Relative Percent Difference.

U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

Sample Results Summary

Date: 11-Aug-08

TestAmerica TARL

Ordered by Method, Batch No., Client Sample ID.

Report No. : 39667 **SDG No:** W05478

Batch	Client Id / Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
8219444	BETA_GPC								
	B1WNC7								
	KTPMP1AA	BETA	9.77E+01 +- 2.01E+01		pCi/L	100%	2.36E+01	4.00E+00	
	B1WNC8								
	KTPMR1AA	BETA	2.75E+01 +- 1.18E+01		pCi/L	100%	2.01E+01	4.00E+00	
	B1WNC9								
	KTPMV1AA	BETA	6.68E+01 +- 1.71E+01		pCi/L	100%	2.28E+01	4.00E+00	
	B1WND0								
	KTPMW1AA	BETA	3.66E+02 +- 5.99E+01		pCi/L	100%	2.19E+01	4.00E+00	
	B1WND1								
	KTPM11AA	BETA	7.70E+00 +- 7.34E+00	U	pCi/L	100%	1.39E+01	4.00E+00	
	B1WND2								
	KTPM21AA	BETA	3.56E+02 +- 4.64E+01		pCi/L	100%	1.10E+01	4.00E+00	
	B1WND3								
	KTPM41AA	BETA	2.91E+04 +- 3.68E+03		pCi/L	100%	9.22E+00	4.00E+00	

No. of Results: 26

TestAmerica

rptSTLRchSaSummary2 V5.1.7 A2002

RPD - Relative Percent Difference.

U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

QC Results Summary

TestAmerica TARL

Ordered by Method, Batch No, QC Type,.

Date: 11-Aug-08

Report No. : 39667

SDG No.: W05478

Batch Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDC|MDA
9310_ALPHABETA_GPC								
8219440 BLANK QC,								
KTP0P1AA	ALPHA	-5.55E-02 +- 1.93E-01	U	pCi/L	100%			4.83E-01
8219440 LCS,								
KTP0P1AC	ALPHA	2.35E+01 +- 5.19E+00		pCi/L	100%	104%	0.0	6.07E-01
BETA_GPC								
8219444 BLANK QC,								
KTP021AA	BETA	3.25E+00 +- 1.13E+00		pCi/L	100%			1.80E+00
8219444 LCS,								
KTP021AC	BETA	2.31E+01 +- 4.37E+00		pCi/L	100%	100%	0.0	1.50E+00

No. of Results: 4

TestAmerica

rptSTLRchQcSummary V5.1.7 A2002

Bias - (Result/Expected)-1 as defined by ANSI N13.30.

U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

TestAmerica

FORM I

SAMPLE RESULTS

Date: 11-Aug-08

Lab Name:	TestAmerica	**SDG:**	W05478	**Collection Date:**	8/6/2008 8:45:00 AM
Lot-Sample No.:	J8H060259-1	**Report No. :**	39667	**Received Date:**	8/6/2008 11:30:00 AM
Client Sample ID:	B1WNC1	**COC No. :**	F06-027-274	**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8219440	9310_ALPHABETA_GPC			**Work Order:** KTPL71AC			**Report DB ID:** 9KTPL710					
ALPHA	***4.18E+00***	U	5.1E+00	5.2E+00	9.48E+00	pCi/L	100%	*0.44*	8/7/08 01:11 p		0.0145	GPC10A
						3.93E+00	3.00E+00	*(1.6)*			L	
Batch: 8219444	BETA_GPC			**Work Order:** KTPL71AA			**Report DB ID:** 9KTPL710					
BETA	***8.62E+01***		1.4E+01	2.0E+01	1.99E+01	pCi/L	100%	*(4.3)*	8/7/08 01:03 p		0.0196	GPC28B
						9.58E+00	4.00E+00	*(8.8)*			L	

No. of Results: 2 **Comments:**

12

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

TestAmerica

FORM I

SAMPLE RESULTS

Date: 11-Aug-08

Lab Name: TestAmerica | **SDG:** W05478 | **Collection Date:** 8/6/2008 8:30:00 AM

Lot-Sample No.: J8H060259-2 | **Report No. :** 39667 | **Received Date:** 8/6/2008 11:30:00 AM

Client Sample ID: B1WNC2 | **COC No. :** F06-027-274 | **Matrix:** WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8219440	9310_ALPHABETA_GPC			**Work Order:** KTPMD1AC			**Report DB ID:** 9KTPMD10					
ALPHA	***1.22E+00***	U	7.5E+00	7.5E+00	1.68E+01	pCi/L	100%	*0.07*	8/7/08 01:11 p		0.0086	GPC10C
						7.01E+00	3.00E+00	*0.33*			L	
Batch: 8219444	BETA_GPC			**Work Order:** KTPMD2AA			**Report DB ID:** 9KTPMD20					
BETA	***5.12E+01***		1.8E+01	1.9E+01	3.21E+01	pCi/L	100%	*(1.6)*	8/8/08 01:25 p		0.0132	GPC32A
						1.55E+01	4.00E+00	*(5.3)*			L	

No. of Results: 2 **Comments:**

13

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

TestAmerica

FORM I

SAMPLE RESULTS

Date: 11-Aug-08

Lab Name: TestAmerica | **SDG:** W05478 | **Collection Date:** 8/6/2008 9:45:00 AM

Lot-Sample No.: J8H060259-3 | **Report No. :** 39667 | **Received Date:** 8/6/2008 11:30:00 AM

Client Sample ID: B1WNC3 | **COC No. :** F06-027-274 | **Matrix:** WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8219440	9310_ALPHABETA_GPC			**Work Order:** KTPMF1AC		**Report DB ID:** 9KTPMF10						
ALPHA	***3.11E-01***	U	2.6E+00	2.6E+00	5.90E+00	pCi/L	100%	*0.05*	8/7/08 01:11 p		0.0229	GPC10D
						2.43E+00	3.00E+00	*0.24*			L	
Batch: 8219444	BETA_GPC			**Work Order:** KTPMF1AA		**Report DB ID:** 9KTPMF10						
BETA	***2.33E+01***		7.7E+00	8.3E+00	1.33E+01	pCi/L	100%	*(1.7)*	8/7/08 01:03 p		0.0298	GPC31A
						6.41E+00	4.00E+00	*(5.6)*			L	

No. of Results: 2 **Comments:**

TestAmerica
rptSTLRchSample
V5.1.7 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

TestAmerica

FORM I

SAMPLE RESULTS

Date: 11-Aug-08

Lab Name: TestAmerica | **SDG:** W05478 | **Collection Date:** 8/6/2008 9:20:00 AM

Lot-Sample No.: J8H060259-4 | **Report No. :** 39667 | **Received Date:** 8/6/2008 11:30:00 AM

Client Sample ID: B1WNC4 | **COC No. :** F06-027-274 | **Matrix:** WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8219440	9310_ALPHABETA_GPC			**Work Order:** KTPMG1AC			**Report DB ID:** 9KTPMG10					
ALPHA	***2.43E+00***	U	2.9E+00	3.0E+00	5.33E+00	pCi/L	100%	*0.46*	8/7/08 01:11 p		0.0226	GPC10E
						2.17E+00	3.00E+00	*(1.6)*			L	
Batch: 8219444	BETA_GPC			**Work Order:** KTPMG1AA			**Report DB ID:** 9KTPMG10					
BETA	***7.09E+03***		7.2E+01	1.3E+03	1.28E+01	pCi/L	100%	*(551.8)*	8/7/08 01:03 p		0.0309	GPC31B
						6.18E+00	4.00E+00	*(11.3)*			L	

No. of Results: 2 **Comments:**

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

TestAmerica

FORM I

SAMPLE RESULTS

Date: 11-Aug-08

Lab Name: TestAmerica **SDG:** W05478 **Collection Date:** 8/6/2008 9:50:00 AM

Lot-Sample No.: J8H060259-5 **Report No. :** 39667 **Received Date:** 8/6/2008 11:30:00 AM

Client Sample ID: B1WNC6 **COC No. :** F06-027-274 **Matrix:** WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8219440	9310_ALPHABETA_GPC			**Work Order:** KTPMM1AC			**Report DB ID:** 9KTPMM10					
ALPHA	***-6.54E-01***	U	2.0E+00	2.0E+00	5.61E+00	pCi/L	100%	*-0.12*	8/7/08 01:11 p		0.0208	GPC10F
						2.25E+00	3.00E+00	*-0.64*			L	
Batch: 8219444	BETA_GPC			**Work Order:** KTPMM1AA			**Report DB ID:** 9KTPMM10					
BETA	***5.07E+01***		9.3E+00	1.1E+01	1.43E+01	pCi/L	100%	*(3.6)*	8/7/08 01:03 p		0.029	GPC31D
						6.88E+00	4.00E+00	*(8.9)*			L	

No. of Results: 2 **Comments:**

16

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

TestAmerica

FORM I

SAMPLE RESULTS

Date: 11-Aug-08

Lab Name: TestAmerica **SDG:** W05478 **Collection Date:** 8/6/2008 10:05:00 AM

Lot-Sample No.: J8H060259-6 **Report No. :** 39667 **Received Date:** 8/6/2008 11:30:00 AM

Client Sample ID: B1WNC7 **COC No. :** F06-027-274 **Matrix:** WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8219440	9310_ALPHABETA_GPC			**Work Order:** KTPMP1AC		**Report DB ID:** 9KTPMP10						
ALPHA	***0.00E+00***	U	0.0E+00	4.9E+00	1.13E+01	pCi/L	100%	*0.*	8/7/08 01:11 p		0.0144	GPC12A
						4.77E+00	3.00E+00	*0.*			L	
Batch: 8219444	BETA_GPC			**Work Order:** KTPMP1AA		**Report DB ID:** 9KTPMP10						
BETA	***9.77E+01***		1.6E+01	2.0E+01	2.36E+01	pCi/L	100%	*(4.1)*	8/7/08 02:39 p		0.0183	GPC32A
						1.14E+01	4.00E+00	*(9.7)*			L	

No. of Results: 2 **Comments:**

17

TestAmerica
rptSTLRchSample
V5.1.7 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

TestAmerica

FORM I

SAMPLE RESULTS

Date: 11-Aug-08

Lab Name:	TestAmerica	**SDG:**	W05478	**Collection Date:**	8/6/2008 10:10:00 AM
Lot-Sample No.:	J8H060259-7	**Report No. :**	39667	**Received Date:**	8/6/2008 11:30:00 AM
Client Sample ID:	B1WNC8	**COC No. :**	F06-027-274	**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8219440	9310_ALPHABETA_GPC			**Work Order:** KTPMR1AC		**Report DB ID:** 9KTPMR10						
ALPHA	***4.66E+00***	U	7.7E+00	7.8E+00	1.53E+01	pCi/L	100%	*0.3*	8/7/08 01:11 p		0.0142	GPC12B
						6.69E+00	3.00E+00	*(1.2)*			L	
Batch: 8219444	BETA_GPC			**Work Order:** KTPMR1AA		**Report DB ID:** 9KTPMR10						
BETA	***2.75E+01***		1.1E+01	1.2E+01	2.01E+01	pCi/L	100%	*(1.4)*	8/7/08 02:39 p		0.0198	GPC32B
						9.67E+00	4.00E+00	*(4.7)*			L	

No. of Results: 2 **Comments:**

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

TestAmerica

FORM I

SAMPLE RESULTS

Date: 11-Aug-08

Lab Name:	TestAmerica	**SDG:**	W05478	**Collection Date:**	8/6/2008 8:55:00 AM
Lot-Sample No.:	J8H060259-8	**Report No. :**	39667	**Received Date:**	8/6/2008 11:30:00 AM
Client Sample ID:	B1WNC9	**COC No. :**	F06-027-274	**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8219440	9310_ALPHABETA_GPC			**Work Order:** KTPMV1AC			**Report DB ID:** 9KTPMV10					
ALPHA	***4.88E+00***	U	7.6E+00	7.6E+00	1.48E+01	pCi/L	100%	*0.33*	8/7/08 01:11 p		0.0137	GPC12C
						6.48E+00	3.00E+00	*(1.3)*			L	
Batch: 8219444	BETA_GPC			**Work Order:** KTPMV1AA			**Report DB ID:** 9KTPMV10					
BETA	***6.68E+01***		1.4E+01	1.7E+01	2.28E+01	pCi/L	100%	*(2.9)*	8/7/08 02:39 p		0.0172	GPC32C
						1.10E+01	4.00E+00	*(7.8)*			L	

No. of Results: 2 **Comments:**

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

TestAmerica

FORM I

SAMPLE RESULTS

Date: 11-Aug-08

Lab Name: TestAmerica **SDG:** W05478 **Collection Date:** 8/6/2008 9:05:00 AM

Lot-Sample No.: J8H060259-9 **Report No. :** 39667 **Received Date:** 8/6/2008 11:30:00 AM

Client Sample ID: B1WND0 **COC No. :** F06-027-274 **Matrix:** WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8219440	9310_ALPHABETA_GPC			**Work Order:** KTPMW1AC			**Report DB ID:** 9KTPMW10					
ALPHA	***-2.36E+00***	U	5.2E+00	5.2E+00	1.30E+01	pCi/L	100%	*-0.18*	8/7/08 02:53 p		0.0145	GPC11A
						5.62E+00	3.00E+00	*-0.91*			L	
Batch: 8219444	BETA_GPC			**Work Order:** KTPMW1AA			**Report DB ID:** 9KTPMW10					
BETA	***3.66E+02***		2.3E+01	6.0E+01	2.19E+01	pCi/L	100%	*(16.7)*	8/7/08 02:39 p		0.0186	GPC32D
						1.06E+01	4.00E+00	*(12.2)*			L	

No. of Results: 2 **Comments:**

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.

U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

TestAmerica

FORM I

SAMPLE RESULTS

Date: 11-Aug-08

Lab Name: TestAmerica | **SDG:** W05478 | **Collection Date:** 8/6/2008 10:20:00 AM

Lot-Sample No.: J8H060259-10 | **Report No. :** 39667 | **Received Date:** 8/6/2008 11:30:00 AM

Client Sample ID: B1WND1 | **COC No. :** F06-027-274 | **Matrix:** WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8219440	9310_ALPHABETA_GPC			**Work Order:** KTPM11AC			**Report DB ID:** 9KTPM110					
ALPHA	***7.93E-01***	U	4.0E+00	4.0E+00	8.63E+00	pCi/L	100%	*0.09*	8/7/08 02:53 p		0.0216	GPC11B
						3.72E+00	3.00E+00	*0.4*			L	
Batch: 8219444	BETA_GPC			**Work Order:** KTPM11AA			**Report DB ID:** 9KTPM110					
BETA	***7.70E+00***	U	7.2E+00	7.3E+00	1.39E+01	pCi/L	100%	*0.55*	8/7/08 04:34 p		0.028	GPC28B
						6.69E+00	4.00E+00	*(2.1)*			L	

No. of Results: 2 **Comments:**

21

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

TestAmerica

FORM I

SAMPLE RESULTS

Date: 11-Aug-08

Lab Name:	TestAmerica	**SDG:**	W05478	**Collection Date:**	8/6/2008 10:00:00 AM
Lot-Sample No.:	J8H060259-11	**Report No. :**	39667	**Received Date:**	8/6/2008 11:30:00 AM
Client Sample ID:	B1WND2	**COC No. :**	F06-027-274	**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8219440	9310_ALPHABETA_GPC			**Work Order:** KTPM21AC			**Report DB ID:** 9KTPM210					
ALPHA	***2.32E+00***	U	3.6E+00	3.7E+00	7.16E+00	pCi/L	100%	*0.32*	8/7/08 02:53 p		0.027	GPC11C
						3.10E+00	3.00E+00	*(1.3)*			L	
Batch: 8219444	BETA_GPC			**Work Order:** KTPM21AA			**Report DB ID:** 9KTPM210					
BETA	***3.56E+02***		1.5E+01	4.6E+01	1.10E+01	pCi/L	100%	*(32.3)*	8/7/08 04:34 p		0.0382	GPC28C
						5.31E+00	4.00E+00	*(15.3)*			L	

No. of Results: 2 **Comments:**

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

TestAmerica

FORM I

SAMPLE RESULTS

Date: 11-Aug-08

Lab Name: TestAmerica | **SDG:** W05478 | **Collection Date:** 8/6/2008 9:30:00 AM

Lot-Sample No.: J8H060259-12 | **Report No. :** 39667 | **Received Date:** 8/6/2008 11:30:00 AM

Client Sample ID: B1WND3 | **COC No. :** F06-027-274 | **Matrix:** WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8219440	9310_ALPHABETA_GPC			**Work Order:** KTPM41AC			**Report DB ID:** 9KTPM410					
ALPHA	***7.78E+00***		3.0E+00	3.4E+00	3.55E+00	pCi/L	100%	*(2.2)*	8/7/08 02:53 p		0.035	GPC11D
						1.48E+00	3.00E+00	*(4.6)*			L	
Batch: 8219444	BETA_GPC			**Work Order:** KTPM41AA			**Report DB ID:** 9KTPM410					
BETA	***2.91E+04***		1.3E+02	3.7E+03	9.22E+00	pCi/L	100%	*(3158.7)*	8/7/08 04:34 p		0.0426	GPC28D
						4.43E+00	4.00E+00	*(15.8)*			L	

No. of Results: 2 **Comments:**

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

TestAmerica

FORM II

Date: 11-Aug-08

DUPLICATE RESULTS

Lab Name:	TestAmerica	**SDG:**	W05478	**Collection Date:**	8/6/2008 8:45:00 AM
Lot-Sample No.:	J8H060259-1	**Report No. :**	39667	**Received Date:**	8/6/2008 11:30:00 AM
Client Sample ID:	B1WNC1 DUP	**COC No. :**	F06-027-274	**Matrix:**	WATER

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8219440	9310_ALPHABETA_GPC			**Work Order:** KTPL71AD		**Report DB ID:** KTPL71DR			**Orig Sa DB ID:** 9KTPL710			
ALPHA	2.03E+00	U	4.9E+00	4.9E+00	1.02E+01	pCi/L	100%	0.2	8/7/08 01:11 p		0.0145	GPC10B
	4.18E+00	U	**RPD**	**69.4**		3.00E+00		0.83			L	

No. of Results: 1 **Comments:**

RPD - Relative Percent Difference.

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.

U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM II

Date: 11-Aug-08

DUPLICATE RESULTS

Lab Name: TestAmerica **SDG:** W05478 **Collection Date:** 8/6/2008 8:30:00 AM

Lot-Sample No.: J8H060259-2 **Report No. :** 39667 **Received Date:** 8/6/2008 11:30:00 AM

Client Sample ID: B1WNC2 DUP **COC No. :** F06-027-274 **Matrix:** WATER

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8219444	BETA_GPC			**Work Order:** KTPMD2AD		**Report DB ID:** KTPMD2DR			**Orig Sa DB ID:** 9KTPMD20			
BETA	2.06E+01	U	1.7E+01	1.7E+01	3.15E+01	pCi/L	100%	0.65	8/8/08 01:25 p		0.0132	GPC32B
	5.12E+01		**RPD**	**85.3**		4.00E+00		(2.5)			L	

No. of Results: 1 **Comments:**

RPD - Relative Percent Difference.

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.

U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM II

BLANK RESULTS

Date: 11-Aug-08

Lab Name: TestAmerica **SDG:** W05478

Matrix: WATER **Report No. :** 39667

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA ,	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8219440	9310_ALPHABETA_GPC			**Work Order:**	KTP0P1AA		**Report DB ID:**	KTP0P1AB				
ALPHA	-5.55E-02	U	1.9E-01	1.9E-01	4.83E-01	pCi/L	100%	-0.11	8/7/08 04:46 p		0.2	GPC12A
					2.04E-01	3.00E+00		-0.58			L	
Batch: 8219444	BETA_GPC			**Work Order:**	KTP021AA		**Report DB ID:**	KTP021AB				
BETA	3.25E+00		1.0E+00	1.1E+00	1.80E+00	pCi/L	100%	(1.8)	8/7/08 04:34 p		0.2	GPC31A
					8.69E-01	4.00E+00		(5.8)			L	

No. of Results: 2 **Comments:**

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.

U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

TestAmerica

FORM II

LCS RESULTS

Date: 11-Aug-08

Lab Name: TestAmerica **SDG:** W05478

Matrix: WATER **Report No. :** 39667

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
Batch: 8219440	9310_ALPHABETA_GPC			**Work Order:**	KTP0P1AC		**Report DB ID:**	KTP0P1CS					
ALPHA	2.35E+01		1.7E+00	5.2E+00	6.07E-01	pCi/L	100%	2.26E+01	3.31E-01	104%	8/7/08 04:46 p	0.2	GPC12B
							Rec Limits:	70	130	0.0		L	
Batch: 8219444	BETA_GPC			**Work Order:**	KTP021AC		**Report DB ID:**	KTP021CS					
BETA	2.31E+01		1.6E+00	4.4E+00	1.50E+00	pCi/L	100%	2.32E+01	3.02E-01	100%	8/7/08 04:34 p	0.2	GPC31B
							Rec Limits:	70	130	0.0		L	

No. of Results: 2 **Comments:**

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

8/8/2008 10:43:30 AM

Lot No., Due Date: J8H060259; 08/11/2008

Client, Site: 108302; FLH HANFORD

QC Batch No., Method Test: 8219440; RALPHA-A Alpha by GPC-Am

SDG, Matrix: W05478; WATER

1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	Yes ✓	No	N/A
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	Yes ✓	No	N/A
2.2 Are the QC appropriate for the analysis included in the batch?	Yes ✓	No	N/A
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	Yes ✓	No	N/A
2.4 Does the Worksheets include a Tracer Vial label for each sample?	Yes	No	N/A ✓
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	Yes ✓	No	N/A
3.2 Is the LCS result, yield, and MDA within contract limits?	Yes ✓	No	N/A
3.3 Are the MS/MSD results, yields, and MDA within contract limits?	Yes	No	N/A ✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	Yes ✓	No	N/A
3.5 Are the sample yields and MDAs within contract limits?	Yes	No ✓	N/A
4.0 Raw Data			
4.1 Were results calculated in the correct units?	Yes ✓	No	N/A
4.2 Were analysis volumes entered correctly?	Yes ✓	No	N/A
4.3 Were Yields entered correctly?	Yes ✓	No	N/A
4.4 Were spectra reviewed/meet contractual requirements?	Yes	No	N/A ✓
4.5 Were raw counts reviewed for anomalies?	Yes ✓	No	N/A
5.0 Other			
5.1 Are all nonconformances included and noted?	Yes ✓	No	N/A
5.2 Are all required forms filled out?	Yes ✓	No	N/A
5.3 Was the correct methodology used?	Yes ✓	No	N/A
5.4 Was transcription checked?	Yes ✓	No	N/A
5.5 Were all calculations checked at a minimum frequency?	Yes	No	N/A ✓
5.6 Are worksheet entries complete and correct?	Yes ✓	No	N/A

6.0 Comments on any No response:
Please see NCM # 10-12826

First Level Review John Hotter **Date** 8-8-8

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 821940

Review Item	Yes (√)	No (√)	NA (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?			✓
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓	✓	
3. Are the correct isotopes reported?	✓		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other 1. Are all Non-conformances included and noted?	✓		
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: Jodie Ce Date: 8/8/08

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: **10-12826**
NCM Initiated By: John Norton
Date Opened: 08/08/2008
Date Closed:

Classification: **Anomaly**
Status: **GLREVIEW**
Production Area: Environmental - Prep
Tests: Alpha by GPC-Am
Lot #'s (Sample #'s): J8H060000 (440), J8H060259 (1,10,11,12,2,3,4,5,6,7,8,9),
QC Batches: 8219440,

Nonconformance: MDA not met
Subcategory: Sample size reduced due to high residue mass

Problem Description / Root Cause

Name	Date	Description
John Norton	08/08/2008	With the exception of sample J8H060259-12 these samples did not meet the RDL due to reduced aliquot sizes caused by high residual weights.

Corrective Action

Name	Date	Corrective Action
John Norton	08/08/2008	The samples were counted for the lonest time frame appropriate to this analysis.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

Verified By	Due Date	Status	Notes
		This section not yet completed by QA.	

Approval History

Date Approved	Approved By	Position

TestAmerica

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

8/11/2008 10:38:25 AM

Lot No., Due Date: J8H060259; 08/11/2008

Client, Site: 108302; FLH HANFORD

QC Batch No., Method Test: 8219444; RBETA-SR Beta by GPC-Sr/Y

SDG, Matrix: W05478; WATER

	Yes	No	N/A
1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	✓		
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	✓		
2.2 Are the QC appropriate for the analysis included in the batch?	✓		
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	✓		
2.4 Does the Worksheets include a Tracer Vial label for each sample?			✓
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	✓		
3.2 Is the LCS result, yield, and MDA within contract limits?	✓		
3.3 Are the MS/MSD results, yields, and MDA within contract limits?			✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?		✓	
3.5 Are the sample yields and MDAs within contract limits?		✓	
4.0 Raw Data			
4.1 Were results calculated in the correct units?	✓		
4.2 Were analysis volumes entered correctly?	✓		
4.3 Were Yields entered correctly?	✓		
4.4 Were spectra reviewed/meet contractual requirements?			✓
4.5 Were raw counts reviewed for anomalies?	✓		
5.0 Other			
5.1 Are all nonconformances included and noted?	✓		
5.2 Are all required forms filled out?	✓		
5.3 Was the correct methodology used?	✓		
5.4 Was transcription checked?	✓		
5.5 Were all calculations checked at a minimum frequency?			✓
5.6 Are worksheet entries complete and correct?	✓		

6.0 Comments on any No response:
Please see NCM # 10-12825

First Level Review John Vostrez **Date** 8-11-8

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 8219444

Review Item	Yes (√)	No (√)	NA (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?			✓
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?		✓	
3. Are the correct isotopes reported?	✓		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?		✓	
C. Other 1. Are all Non-conformances included and noted?	✓		
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: See narr

Second Level Review: Erika Ford Date: 8/11/18

LS-038B, Rev. 10, 9/07

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: **10-12825**
NCM Initiated By: John Norton
Date Opened: 08/08/2008
Date Closed:

Classification: **Anomaly**
Status: **GLREVIEW**
Production Area: Environmental - Prep
Tests: Beta by GPC-Sr/Y
Lot #'s (Sample #'s): J8H060000 (444), J8H060259 (1,10,11,12,2,3,4,5,6,7,8,9),
QC Batches: 8219444,

Nonconformance: MDA not met
Subcategory: Sample size reduced due to high residue mass

Problem Description / Root Cause

Name	Date	Description
John Norton	08/08/2008	1: The samples did not meet the RDL due to reduced aliquots caused by high residue weights. 2: The duplicate and sample do not show appropriate agreement.

Corrective Action

Name	Date	Corrective Action
John Norton	08/08/2008	1: With the exception of the duplicate all of the samples in this batch showed activity that is greater than the IDC. 2: The activity detected in the duplicate is below the IDC, the dup was counted for the longest time frame appropriate to this analysis, the discrepancy between the sample and duplicate is possibly due to the small fraction of volume analyzed.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note
	Response	Response Note			

Quality Assurance Verification

Verified By	Due Date	Status	Notes
		This section not yet completed by QA.	

Approval History

Date Approved	Approved By	Position

Date Printed: 8/8/2008

TestAmerica

Fluor Hanford Inc. — CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST — F06-027-274

COLLECTOR Mokler	**COMPANY CONTACT** FABRE, RJ	**TELEPHONE NO.** 373-2774	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION 100NR2 Syn.Apatite Post-Inj.#5/Day12	**PROJECT DESIGNATION** 100-N Apatite Barrier Performance Monitoring		**SAF NO.** F06-027
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-585-11	**ACTUAL SAMPLE DEPTH**	**COA** 122561ES20
SHIPPED TO TestAmerica Incorporated, Richland	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**

PRICE CODE 7A

AIR QUALITY ☐

DATA TURNAROUND 3 Days / 1 Days

METHOD OF SHIPMENT GOVERNMENT VEHICLE

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegitation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HNO3 to pH <2
TYPE OF CONTAINER	P
NO. OF CONTAINER(S)	1
VOLUME	1000mL
SAMPLE ANALYSIS	Gross Alpha (Gross alpha) Gross Beta (Gross beta)

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME	C8-2956
B1WNC1	KTPL7	WATER	8/6/08	0845	X
B1WNC2	KTPMD	WATER	↓	0830	X
B1WNC3	KTPMF	WATER	↓	0945	X
B1WNC4	KTPMG	WATER	✓	0920	X
~~B1WNC5~~		~~WATER~~ No Sample	—	—	X

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J. Herrick	8/6/08 1130	LW LANE TAL	8608 1130
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

J8H060259
W25478
DUE 81108
~~KTPL7~~ 8608

LABORATORY SECTION RECEIVED BY — TITLE — DATE/TIME

FINAL SAMPLE DISPOSITION DISPOSAL METHOD — DISPOSED BY — DATE/TIME

A-6003-618(01/06)

TestAmerica

Fluor Hanford Inc. | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | F06-027-274 | PAGE 2 OF 3

COLLECTOR Mokler

COMPANY CONTACT FABRE, RJ

TELEPHONE NO. 373-2774

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 7A

DATA TURNAROUN 3 Days / Days

SAMPLING LOCATION 100NR2 Syn.Apatite Post-Inj.#5/Day12

PROJECT DESIGNATION 100-N Apatite Barrier Performance Monitoring

SAF NO. F06-027

AIR QUALITY

ICE CHEST NO.

FIELD LOGBOOK NO. HNF-N-585-11

ACTUAL SAMPLE DEPTH

COA 122561ES20

METHOD OF SHIPMENT GOVERNMENT VEHICLE

SHIPPED TO TestAmerica Incorporated, Richland

OFFSITE PROPERTY NO.

BILL OF LADING/AIR BILL NO.

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegitation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HNO3 to pH <2
TYPE OF CONTAINER	P
NO. OF CONTAINER(S)	1
VOLUME	1000mL
SAMPLE ANALYSIS	Gross Alpha {Gross alpha} Gross Beta {Gross beta}

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME	122956
B1WNC6	KTPMM	WATER	8-6-8	0950	X
B1WNC7	KTPMP	WATER	↓	1005	X
B1WNC8	KTPMR	WATER	↓	1010	X
B1WNC9	KTPMV	WATER	↓	0855	X
B1WND0	KTPMW	WATER	↓	0905	X

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J. Herrick J. Herrick	8/6/08 1130	RLLANE TAL	8608 1130

SPECIAL INSTRUCTIONS
J8H060259
W05478
DUE 81108

LABORATORY SECTION RECEIVED BY | TITLE | DATE/TIME

FINAL SAMPLE DISPOSITION DISPOSAL METHOD | DISPOSED BY | DATE/TIME

A-6003-618(01/06)

TestAmerica

Fluor Hanford Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

COLLECTOR Mokler

COMPANY CONTACT FABRE, RJ

TELEPHONE NO. 373-2774

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 7A

DATA TURNAROUND 3 Days / Days

SAMPLING LOCATION 100NR2 Syn.Apalite Post-Inj.#5/Day12

PROJECT DESIGNATION 100-N Apatite Barrier Performance Monitoring

SAF NO. F06-027

AIR QUALITY

ICE CHEST NO.

FIELD LOGBOOK NO. HNF-N-585-11

ACTUAL SAMPLE DEPTH

COA 122561ES20

METHOD OF SHIPMENT GOVERNMENT VEHICLE

SHIPPED TO TestAmerica Incorporated, Richland

OFFSITE PROPERTY NO.

BILL OF LADING/AIR BILL NO.

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegitation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HNO3 to pH <2
TYPE OF CONTAINER	P
NO. OF CONTAINER(S)	1
VOLUME	1000mL
SAMPLE ANALYSIS	Gross Alpha {Gross alpha} Gross Beta {Gross beta}

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME	022956
B1WND1	KTPM1	WATER	8-6-8	1020	X
B1WND2	KTPM2	WATER	↓	1000	X
B1WND3	KTPM4	WATER	↓	0930	X

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CHAIN OF POSSESSION **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J. Herrick	8/6/08 1130	LJ LANE TAL	8608 1130

SPECIAL INSTRUCTIONS
J8H060259
W05478
DUE 81108

LABORATORY SECTION RECEIVED BY — TITLE — DATE/TIME

FINAL SAMPLE DISPOSITION DISPOSAL METHOD — DISPOSED BY — DATE/TIME

A-6003-618(01/06)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 8608 1130 GM Screen Result 0.1K

Client: FLH SDG #: W05478 NA[ ] SAF #: F06-027 NA [ ]

Work Order Number: J8H060259 Chain of Custody # F06-027-274

Shipping Container ID: N/A Air Bill # N/A

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? NA [ ] Yes [✓] No [ ]
4. Cooler Temperature: _____ NA [✓] 5. Vermiculite/packing materials is NA [✓] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 12
7. Sample holding times exceeded? NA [✓] Yes [ ] No [ ]
8. Samples have:
   - _____ Tape
   - [✓] Custody Seals
   - _____ Hazard Lables
   - [✓] Appropriate Sample Lables
9. Samples are:
   - [✓] In Good Condition
   - _____ Broken
   - _____ Leaking
   - _____ Have Air Bubbles

   (Only for samples requiring no head space.)
10. Sample pH taken? NA [ ] pH<2 [ ] pH>2 [✓] pH>9 [ ] Amount HNO_3 Added 2mL/LP
11. Sample Location, Sample Collector Listed? *
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): _____

Sample Custodian: _____ Date: 8608

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on 8/6/08 by Email | IRF Person Contacted H. Hampt.

[✓] No action necessary; process as is.

Project Manager _____ Date 8/6/08

TestAmerica

8/6/2008 3:58:56 PM

Sample Preparation/Analysis

PRIORITY

Balance Id:1119381299

108302, Fluor Hanford Inc Management Federal Servi , Waste

AZ Gross Alpha PrpRC5014
S7 Gross Alpha by GPC using Am-241 curve

Pipet #: _____

AnalyDueDate: 08/11/2008 W05478

5I CLIENT: HANFORD

Sep1 DT/Tm Tech:

Batch: 8219440 WATER pCi/L

PM, Quote: SS , 29754

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 8219440 AZS7, 8219444 BCS8,

Prep Tech: ,BockT

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 KTPL7-1-AC J8H060259-1-SAMP 08/06/2008 08:45	14.50g,in AmtRec: LP #Containers: 1			1.5	42.2	200	10A Scr:	1452 Alpha:	8/7/08 mm Beta:	
2 KTPL7-1-AD-X J8H060259-1-DUP 08/06/2008 08:45	14.50g,in AmtRec: LP #Containers: 1				40.7		10B Scr:	Alpha:	Beta:	
3 KTPMD-1-AC J8H060259-2-SAMP 08/06/2008 08:30	8.60g,in AmtRec: LP #Containers: 1				43.9		10C Scr:	Alpha:	Beta:	
4 KTPMF-1-AC J8H060259-3-SAMP 08/06/2008 09:45	22.90g,in AmtRec: LP #Containers: 1				43.6		10D Scr:	Alpha:	Beta:	
5 KTPMG-1-AC J8H060259-4-SAMP 08/06/2008 09:20	22.60g,in AmtRec: LP #Containers: 1				37.2		10E Scr:	Alpha:	Beta:	
6 KTPMM-1-AC J8H060259-5-SAMP 08/06/2008 09:50	20.80g,in AmtRec: LP #Containers: 1				39.7		10F Scr:	Alpha:	Beta:	
7 KTPMP-1-AC J8H060259-6-SAMP 08/06/2008 10:05	14.40g,in AmtRec: LP #Containers: 1				44.2		12A Scr:	Alpha:	Beta:	

TestAmerica

8/6/2008 3:58:58 PM

Sample Preparation/Analysis

Balance Id:1119381299

108302, Fluor Hanford Inc Management Federal Servi , Waste

AZ Gross Alpha PrpRC5014
S7 Gross Alpha by GPC using Am-241 curve
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 08/11/2008

Sep1 DT/Tm Tech:

Batch: 8219440 **WATER** **pCi/L** **PM, Quote: SS , 29754**

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,BockT

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 KTPMR-1-AC J8H060259-7-SAMP 08/06/2008 10:10		14.20g,in AmtRec: LP #Containers: 1		1.5	46.4	200	12B Scr:	1452 Alpha:	8/7/08 MC Beta:	
9 KTPMV-1-AC J8H060259-8-SAMP 08/06/2008 08:55		13.70g,in AmtRec: LP #Containers: 1			45.7		12C Scr:	Alpha:	Beta:	
10 KTPMW-1-AC J8H060259-9-SAMP 08/06/2008 09:05		14.50g,in AmtRec: LP #Containers: 1			44.3		11A Scr:	1634 Alpha:	8/7/08 MC Beta:	
11 KTPM1-1-AC J8H060259-10-SAMP 08/06/2008 10:20		21.60g,in AmtRec: LP #Containers: 1			42.3		11B Scr:	Alpha:	Beta:	
12 KTPM2-1-AC J8H060259-11-SAMP 08/06/2008 10:00		27.00g,in AmtRec: LP #Containers: 1			40.9		11C Scr:	Alpha:	Beta:	
13 KTPM4-1-AC J8H060259-12-SAMP 08/06/2008 09:30		35.00g,in AmtRec: LP #Containers: 1			31.2		11D Scr:	Alpha:	Beta:	
14 KTP0P-1-AA-B J8H060000-440-BLK 08/06/2008 08:45		200.00g,in AmtRec: #Containers: 1			1.0		12A Scr:	1827 Alpha:	8/7/08 MC Beta:	

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TestAmerica

8/6/2008 3:59:00 PM

Sample Preparation/Analysis

AZ Gross Alpha PrpRC5014
S7 Gross Alpha by GPC using Am-241 curve
5I CLIENT: HANFORD

Balance Id:1119381299

Pipet #: _____

AnalyDueDate: 08/11/2008

Sep1 DT/Tm Tech:

Batch: 8219440 pCi/L

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,BockT

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 KTP0P-1-AC-C		200.00g,in	ASD4557				12B	1827	8/7/08 MC	
J8H060000-440-LCS			07/16/08,pd 06/21/01,r	1.5	1.1	200				
08/06/2008 08:45		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:

Comments:

All Clients for Batch:
108302, Fluor Hanford Inc Waste Management Federal Servi, SS , 29754

KTPL71AC-SAMP Constituent List:

KTP0P1AA-BLK:

KTP0P1AC-LCS:

KTPL71AC-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KTP0P1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KTP0P1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

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8/8/2008 10:32:14 AM

ICOC Fraction Transfer/Status Report

ByDate: 8/9/2007, 8/13/2008, Batch: '8219440', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
8219440						
AC		**Rev1C**	**BockT**	8/6/2008 3:25:25 PM		
SC			wagarr	IsBatched	8/6/2008 3:16:07 PM	ICOC_RADCALC v4.8.34
SC			BockT	InPrep	8/6/2008 3:25:25 PM	GPC-001 REVISION 0
SC			BockT	Prep2C	8/7/2008 10:55:53 AM	GPC-001 REVISION 0
SC			ClarkR	InCnt1	8/7/2008 11:11:27 AM	RL-CI-006 REVISION 0
SC			DAWKINSO	CalcC	8/7/2008 8:27:36 PM	RL-CI-006 REVISION 0
SC			nortonj	Rev1C	8/8/2008 10:32:06 AM	RL-DR-001 REV 8
AC			**BockT**	8/7/2008 10:55:53		
AC			**ClarkR**	8/7/2008 11:11:27		
AC			**DAWKINSO**	8/7/2008 8:27:36 PM		
AC			**nortonj**	8/8/2008 10:32:06		

AC: Accepting Entry; SC: Status Change

TestAmerica

8/6/2008 3:59:01 PM

Sample Preparation/Analysis

Balance Id:1119381299

108302, Fluor Hanford Inc Management Federal Servi , Waste

BC Gross Beta PrpRC5014
S8 Gross Beta by GPC using Sr/Y-90 curve
5I CLIENT: HANFORD

PRIORITY

Pipet #: _____

AnalyDueDate: 08/11/2008 W05478

Sep1 DT/Tm Tech:

Batch: 8219444 **WATER** **pCi/L**

PM, Quote: SS , 29754

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BockT

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 KTPL7-1-AA J8H060259-1-SAMP 08/06/2008 08:45		19.60g,in AmtRec: LP #Containers: 1		1.5	97.9	200	28S Scr:	1479 Alpha:	8/7/08 PM Beta:	
2 KTPMD-1-AA J8H060259-2-SAMP 08/06/2008 08:30		13.20g,in AmtRec: LP #Containers: 1			102.6		28C Scr:	Alpha:	Beta:	
3 KTPMD-1-AD-X J8H060259-2-DUP 08/06/2008 08:30		13.20g,in AmtRec: LP #Containers: 1			102.3		28P Scr:	Alpha:	Beta:	
4 KTPMF-1-AA J8H060259-3-SAMP 08/06/2008 09:45		29.80g,in AmtRec: LP #Containers: 1			86.7		31A Scr:	Alpha:	Beta:	
5 KTPMG-1-AA J8H060259-4-SAMP 08/06/2008 09:20		30.90g,in AmtRec: LP #Containers: 1			101.3		31B Scr:	Alpha:	Beta:	
6 KTPMM-1-AA J8H060259-5-SAMP 08/06/2008 09:50		29.00g,in AmtRec: LP #Containers: 1			89.8		31D Scr:	Alpha:	Beta:	
7 KTPMP-1-AA J8H060259-6-SAMP 08/06/2008 10:05		18.30g,in AmtRec: LP #Containers: 1			88.7		~~32A~~ 32A Scr:	1615 Alpha:	8/7/08 PM Beta:	

TestAmerica

8/6/2008 3:59:03 PM

Sample Preparation/Analysis

Balance Id:1119381299

108302, Fluor Hanford Inc Management Federal Servi . Waste

BC Gross Beta PrpRC5014
S8 Gross Beta by GPC using Sr/Y-90 curve
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 08/11/2008

Sep1 DT/Tm Tech:

Batch: 8219444 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SS , 29754

Sep2 DT/Tm Tech:

Prep Tech: ,BockT

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 KTPMR-1-AA J8H060259-7-SAMP 08/06/2008 10:10		19.80g,in AmtRec: LP #Containers: 1		1.5	96.6	200	~~728~~ 8/11/0 728 Scr:	1615 Alpha:	8/7/08 JM Beta:	
9 KTPMV-1-AA J8H060259-8-SAMP 08/06/2008 08:55		17.20g,in AmtRec: LP #Containers: 1			83.9		~~72C~~ RUSHED 72C Scr:	 Alpha:	 Beta:	
10 KTPMW-1-AA J8H060259-9-SAMP 08/06/2008 09:05		18.60g,in AmtRec: LP #Containers: 1			84.6		~~72D~~ RUSHED 72D Scr:	 Alpha:	 Beta:	
11 KTPM1-1-AA J8H060259-10-SAMP 08/06/2008 10:20		28.00g,in AmtRec: LP #Containers: 1			95.4		28B Scr:	1810 Alpha:	8/7/08 JM Beta:	
12 KTPM2-1-AA J8H060259-11-SAMP 08/06/2008 10:00		38.20g,in AmtRec: LP #Containers: 1			86.9		28C Scr:	 Alpha:	 Beta:	
13 KTPM4-1-AA J8H060259-12-SAMP 08/06/2008 09:30		42.60g,in AmtRec: LP #Containers: 1			105.5		28D Scr:	 Alpha:	 Beta:	
14 KTP02-1-AA-B J8H060000-444-BLK 08/06/2008 08:30		200.00g,in AmtRec: #Containers: 1			0.2		31A Scr:	 Alpha:	 Beta:	

TestAmerica

8/6/2008 3:59:05 PM

Sample Preparation/Analysis

BC Gross Beta PrpRC5014
S8 Gross Beta by GPC using Sr/Y-90 curve
5I CLIENT: HANFORD

Balance Id:1119381299
Pipet #: _____
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech: ,BockT

AnalyDueDate: 08/11/2008

Batch: 8219444 pCi/L
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 KTP02-1-AC-C		200.00g,in	BESB3325	1.5	1.0	200	71B	18/0	8/7/08 PK	
J8H060000-444-LCS			07/16/08,pd							
08/06/2008 08:30		AmtRec:	#Containers: 1				Scr:	Alpha:		Beta:

Comments:

All Clients for Batch:
108302, Fluor Hanford Inc Waste Management Federal Servi, SS , 29754

KTPL71AA-SAMP Constituent List:

KTP021AA-BLK:

KTP021AC-LCS:

KTPL71AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KTP021AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KTP021AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

RE-COUNT REQUEST

DUE DATE 8-11

CUSTOMER FLUOR

ANALAYSIS B

MATRIX H_2O

LOT NUMBER 180602519

SAMPLE DELIVERY GROUP WO 5478

OLD BATCH NUMBER 8219444

NEW BATCH NUMBER

LAB SAMPLE ID	CLIENT ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1) KTPMDAA		DUP IS OUT
2) KTPMD10DX		
3)		
4)		
5)		
6)		FLAME & RE-COUNT
7)		
8)		
9)		
10)		
11)		
12)		
13)		
14)		
15)		
16)		
17)		
18)		
19)		
20)		

RC-126, 12/07, Rev 5

TestAmerica

8/8/2008 11:26:05 AM

Sample Preparation/Analysis

Balance Id:1119381299

108302, Fluor Hanford Inc , Waste
Management Federal Servi

BC Gross Beta PrpRC5014
S8 Gross Beta by GPC using Sr/Y-90 curve
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 08/11/2008

Sep1 DT/Tm Tech:

Batch: 8219444 **WATER** **pCi/L** **PM, Quote: SS , 29754**

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 8219440 AZS7, 8219444 BCS8,

Prep Tech: ,BockT

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 KTPL7-1-AA		19.60g,in								
J8H060259-1-SAMP										
08/06/2008 08:45		AmtRec: LP	#Containers: 1					Scr:	Alpha:	Beta:
2 KTPMD-1-AA		13.20g,in								
J8H060259-2-SAMP										
08/06/2008 08:30		AmtRec: LP	#Containers: 1					Scr:	Alpha:	Beta:
3 KTPMD-1-AD-X		13.20g,in								
J8H060259-2-DUP										
08/06/2008 08:30		AmtRec: LP	#Containers: 1					Scr:	Alpha:	Beta:
[redacted]		13.2		1.5	95.6	200	32 A	1501	9/6/08 MC	
J8H060259-2-SAMP										
08/06/2008 08:30		AmtRec: LP	#Containers: 1					Scr:	Alpha:	Beta:
[redacted]		13.2		1.5	96.0	200	32 B			
J8H060259-2-DUP										
08/06/2008 08:30		AmtRec: LP	#Containers: 1					Scr:	Alpha:	Beta:
6 KTPMF-1-AA		29.80g,in								
J8H060259-3-SAMP										
08/06/2008 09:45		AmtRec: LP	#Containers: 1					Scr:	Alpha:	Beta:
7 KTPMG-1-AA		30.90g,in								
J8H060259-4-SAMP										
08/06/2008 09:20		AmtRec: LP	#Containers: 1					Scr:	Alpha:	Beta:

TestAmerica

8/8/2008 11:26:05 AM

Sample Preparation/Analysis

Balance Id:1119381299

108302, Fluor Hanford Inc Management Federal Servi , Waste

BC Gross Beta PrpRC5014
S8 Gross Beta by GPC using Sr/Y-90 curve
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 08/11/2008

Sep1 DT/Tm Tech:

Batch: 8219444 WATER pCi/L

PM, Quote: SS , 29754

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BockT

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 **KTPMM-1-AA**		29.00g,in								
J8H060259-5-SAMP										
08/06/2008 09:50		AmtRec: LP	#Containers: 1					Scr:	Alpha:	Beta:
9 **KTPMP-1-AA**		18.30g,in								
J8H060259-6-SAMP										
08/06/2008 10:05		AmtRec: LP	#Containers: 1					Scr:	Alpha:	Beta:
10 **KTPMR-1-AA**		19.80g,in								
J8H060259-7-SAMP										
08/06/2008 10:10		AmtRec: LP	#Containers: 1					Scr:	Alpha:	Beta:
11 **KTPMV-1-AA**		17.20g,in								
J8H060259-8-SAMP										
08/06/2008 08:55		AmtRec: LP	#Containers: 1					Scr:	Alpha:	Beta:
12 **KTPMW-1-AA**		18.60g,in								
J8H060259-9-SAMP										
08/06/2008 09:05		AmtRec: LP	#Containers: 1					Scr:	Alpha:	Beta:
13 **KTPM1-1-AA**		28.00g,in								
J8H060259-10-SAMP										
08/06/2008 10:20		AmtRec: LP	#Containers: 1					Scr:	Alpha:	Beta:
14 **KTPM2-1-AA**		38.20g,in								
J8H060259-11-SAMP										
08/06/2008 10:00		AmtRec: LP	#Containers: 1					Scr:	Alpha:	Beta:

8/8/2008 11:26:06 AM

Sample Preparation/Analysis

Balance Id:1119381299

108302, Fluor Hanford Inc , Waste
Management Federal Servi

BC Gross Beta PrpRC5014
S8 Gross Beta by GPC using Sr/Y-90 curve
5I CLIENT: HANFORD

Pipet #:

AnalyDueDate: 08/11/2008

Sep1 DT/Tm Tech:

Batch: 8219444 **WATER** **pCi/L** **PM, Quote: SS , 29754**

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,BockT

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 KTPM4-1-AA J8H060259-12-SAMP 08/06/2008 09:30		42.60g,in AmtRec: LP			#Containers: 1			Scr:	Alpha:	Beta:
16 KTP02-1-AA-B J8H060000-444-BLK 08/06/2008 08:30		200.00g,in AmtRec:			#Containers: 1			Scr:	Alpha:	Beta:
17 KTP02-1-AC-C J8H060000-444-LCS 08/06/2008 08:30		200.00g,in AmtRec:	BESB3325 07/16/08,pd 07/14/06,r		#Containers: 1			Scr:	Alpha:	Beta:

48

Comments:

All Clients for Batch:
108302, Fluor Hanford Inc Waste Management Federal Servi, SS , 29754

KTPL71AA-SAMP Constituent List:

BETA	RDL:4	pCi/L	LCL:	UCL:	RPD:
KTP021AA-BLK:					
BETA	RDL:4	pCi/L	LCL:	UCL:	RPD:
KTP021AC-LCS:					
Sr-90	RDL:	pCi/L	LCL:70	UCL:130	RPD:20

KTPL71AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KTP021AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KTP021AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

8/8/2008 11:26:06 AM

Sample Preparation/Analysis

Balance Id:1119381299

BC Gross Beta PrpRC5014
S8 Gross Beta by GPC using Sr/Y-90 curve
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 08/11/2008

Sep1 DT/Tm Tech:

Batch: 8219444 pCi/L
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,BockT

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

Approved By _____ Date: _____

8/11/2008 10:38:02 AM

ICOC Fraction Transfer/Status Report

ByDate: 8/12/2007, 8/16/2008, Batch: '8219444', User: *ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus	Accepting			Comments
8219444							
AC			**CalcC**	**BockT**	8/7/2008 10:55:46		
SC				bockt	IsBatched	8/6/2008 2:28:32 PM	ICOC_RADCALC v4.8.34
SC				BockT	Prep2C	8/7/2008 10:55:46 AM	GPC-001 REVISION 0
SC				ClarkR	InCnt1	8/7/2008 11:11:40 AM	RL-CI-006 REVISION 0
SC				DAWKINSO	CalcC	8/7/2008 9:22:55 PM	RL-CI-006 REVISION 0
SC				nortonj	Rev1C	8/8/2008 10:24:01 AM	RL-DR-001 REV 8
SC				ClarkR	InCnt1	8/8/2008 11:41:25 AM	RL-CI-006 REVISION 0
SC				DAWKINSO	CalcC	8/8/2008 6:46:50 PM	RL-CI-006 REVISION 0
AC				**ClarkR**	8/7/2008 11:11:40		
AC				**DAWKINSO**	8/7/2008 9:22:55 PM		
AC				**nortonj**	8/8/2008 10:24:01		
AC				**ClarkR**	8/8/2008 11:41:25		
AC				**DAWKINSO**	8/8/2008 6:46:50 PM		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Grp Rec Cnt:6

ICOCFractions v4.8.34